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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,142	01/27/2004	Raja Banerjee	03-16	1947
30699	7590	01/30/2006	EXAMINER	
DAYCO PRODUCTS, LLC			RIVELL, JOHN A	
1 PRESTIGE PLACE			ART UNIT	
MIAMISBURG, OH 45342			PAPER NUMBER	

3753

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/766,142

Applicant(s)

BANERJEE ET AL.

Examiner

John Rivell

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/27/04 (application).
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>01272004</u> . | 6) <input type="checkbox"/> Other: _____ |

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 14-17 are rejected under 35 U.S.C. §102 (b) as being anticipated by Yamazaki et al. or Furuta, U.S. Patent Application Publication No. 2002/0134461 (Furuta (Pub.)).

The patent to Yamazaki et al., in figure 10 for example, clearly discloses a “fuel fill system comprising: a funnel (22a') having an inlet port (at the right) configured to receive a nozzle (3) from an external fuel source (G); a fuel filler tube (to the left of 22') coupled to an outlet port of the funnel (22a'); and a vapor recirculation tube (27₃) coupled to the funnel (22a'), wherein fuel vapor from the vapor recirculation tube (27₃) enters the funnel (22a') through a fuel vapor port, and the fuel vapor port directs the fuel vapor toward the outlet port” to the left of numeral 22' as recited in claim 1.

Regarding claim 2, in Yamazaki et al., the “funnel (22a') includes a cylindrical portion through which the fuel vapor port (from conduit 27₃) is disposed, the fuel vapor port has a centerline disposed at a first angle less than 90° from a longitudinal axis of the cylindrical portion” as recited, based on a review of the relationship of the angles of the elements shown in the figure.

Regarding claim 3, in Yamazaki et al., based on the review of the relationship of the angles of the elements as shown, “the first angle is between about 20° to about 70°” as recited.

Regarding claim 4, in Yamazaki et al., based on the review of the relationship of the angles of the elements as shown “the first angle is between about 30° to about 60°” as recited.

Regarding claims 14-17, Yamazaki et al. clearly discloses a “funnel for a fuel system” inclusive of all the claimed features as repeated above.

The patent to Furuta discloses, in figure 3 for example, “fuel fill system comprising: a funnel (generally at 1, 2) having an inlet port (at the right at 7) configured to receive a nozzle (N) from an external fuel source; a fuel filler tube (to the left of 1) coupled to an outlet port of the funnel; and a vapor recirculation tube (4, channel 5) coupled to the funnel, wherein fuel vapor from the vapor recirculation tube (4) enters the funnel (at 5) through a fuel vapor port, and the fuel vapor port directs the fuel vapor toward the outlet port” to the left of numeral 1 as recited in claim 1.

Regarding claim 2, in Furuta, the “funnel (2) includes a cylindrical portion through which the fuel vapor port (from conduit 4 at 5) is disposed, the fuel vapor port has a centerline disposed at a first angle less than 90° from a longitudinal axis of the cylindrical portion” based on a review of the relationship of the angles of the elements shown in the figure.

Regarding claim 3, in Furuta (Pub.), based on a review of the relationship of the angles of the elements shown in the figure “the first angle is between about 20° to about 70°” as recited.

Regarding claim 4, in Furuta (Pub.), based on a review of the relationship of the angles of the elements shown in the figure "the first angle is between about 30° to about 60°" as recited.

Regarding claims 6 and 7, Furuta clearly discloses a "funnel for a fuel system" inclusive of all the claimed features as repeated above.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5-13 and 18-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furuta (Pub.) in view of Royle et al.

The patent to Furuta (Pub.) discloses all the claimed features, as noted above, including the formation of a swirl or vortex pattern of fuel vapor entering the fuel filler neck outlet, but does not disclose formation of the swirl pattern or vortex as a result of the off center introduction port from the vapor vent passage entering the fuel filler neck cylindrical portion. As Furuta (Pub.) does include disclosure of the swirl or vortex pattern, prior art relating to the formation of the swirl or vortex pattern is relevant.

The patent to Royle et al. discloses that it is known in the art to employ at angled introduction ports 17a, 17b of figure 2, the use of fluid introduction ports at angles less

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than 90° and upon close scrutiny "between about 20° to about 70°, especially between about 30° to about 60°" to the tangent for the purpose of causing a swirl or vortex pattern of the introduced fluid and the fluid already within the conduit to which fluid in introduced.

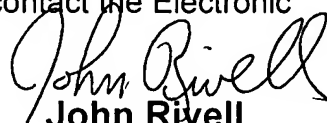
It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Furuta (Pub.) angled introduction ports at inlet channel 5, at angles less than 90° and "between about 20° to about 70°, especially between about 30° to about 60°" to the tangent for the purpose of causing a swirl or vortex pattern of the introduced fluid and the fluid already within the conduit to which fluid in introduced as recognized by Royle et al.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (571) 272-4918. The examiner can normally be reached on Mon.-Thur. from 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (571) 272-4930. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John Rivell
Primary Examiner
Art Unit 3753

j.r.